

WD5

Trembling aspen / Beaked hazelnut / Interrupted fern / Sphagnum

Populus tremuloides / *Corylus cornuta* /
Osmunda claytoniana / *Sphagnum* spp.

n=7



Wallace Bay,
Cumberland County

Concept: Poorly drained flats and gentle slopes support this relatively uncommon wet forest, which is characterized by trembling aspen canopy dominance and high sphagnum cover. This is the wettest trembling aspen forest in Nova Scotia. Red maple is a frequent but lesser canopy component, while balsam fir and/or spruce are occasionally present with low cover.

Vegetation: Canopy layers are strongly dominated by trembling aspen or co-dominated by trembling aspen and red maple. Small patches or scattered balsam fir and spruce (usually red) are not uncommon. Black ash is infrequently a component of this forest type, but may be restricted to the understory. Lower woody layers are moderately well developed but largely dominated by regenerating canopy species; beaked hazelnut is the only characteristic shrub. Interrupted fern, wood aster, dwarf raspberry and several common upland forest species comprise the sometimes sparse herbaceous layer. Bryophyte abundance is similar, and only common green sphagnum is prominent.

Ecological Features

Despite its relative scarcity, this small-patch VT has somewhat low conservation value. Most stands originate through farming and show signs of fertilizer pollution, erosion and hydrologic alteration. However, in many agricultural landscapes, young seral forests, such as WD5, provide the only notable habitat for some wildlife.

For example, aspen leaves, twigs and bark are highly nutritious, providing an important food source, while the tree's soft wood is easily excavated by cavity nesters. This ecosystem's potential for self-renewal from root suckering is high, provided that erosion and pollution inputs are minimized. The VT occurs in small to medium sized basins or in

Environmental Setting: WD5 is mainly found in the Northumberland/Bras d'Or ecoregion, but can occur in other parts of the mainland Nova Scotia. This low elevation ecosystem is usually on poorly drained flats or lower slopes, with moderate exposure. Most sites have little surface stoniness or exposed bedrock, but slight microtopography. WD5 sites are associated with low to moderate nutrient availability, shallow to moderate rooting potential and moderate humus accumulation. Both mineral and organic soils can be found, but mineral substrates (of variable texture) are more common. WD5 is widespread in northern Prince Edward Island and across both southwestern and eastern New Brunswick.

Successional Dynamics: This is an early-successional forest but wet soils limit its potential for successional development. Depending on disturbance history, site fertility and nearby seed sources, WD5 could maintain itself or succeed to WD3 (Red maple / Sensitive fern – Lady fern / Sphagnum), WD7 (Balsam fir – White ash / Cinnamon fern – New York fern / Sphagnum) or WD8 (Red spruce – Red maple / Wood sorrel – Sensitive fern / Sphagnum). Windthrow and harvesting are the main stand-level disturbance agents. This Vegetation Type (VT) usually originates from agricultural land clearing or clearcutting.

small perched depressions. Stands are usually very productive, but no species of conservation concern were found in available plot data. Similar to other wetlands, WD5 contributes to carbon, nitrogen and water budgets and helps regulate groundwater quality and flow.

Characteristic Plants

WD5

	Freq. (%)	Cover (%)
Trembling aspen	100	47.4
Red maple	100	15.4
Balsam fir	43	14.7
Black spruce	43	4.0
White spruce	43	2.7
Red spruce	14	20.0
Red pine	14	15.0
Grey birch	14	10.0
Large-tooth aspen	14	5.0
White ash	14	5.0
Tree Layer (Mean % Cover)		79
Red maple	100	2.7
Beaked hazelnut	86	0.4
Balsam fir	71	5.9
Wild raisin	57	1.3
Trembling aspen	57	0.5
Serviceberry	57	0.1
Black spruce	43	12.3
Lambkill	43	9.7
Lowbush blueberry	29	20.5
Speckled alder	29	14.5
White ash	29	2.1
Grey birch	29	1.1
Willows	29	1.1
White spruce	29	0.8
Shrub Layer (Mean % Cover)		33
Sarsaparilla	100	1.0
Interrupted fern	86	2.6
Wild lily-of-the-valley	86	1.6
Bunchberry	71	2.4
Starflower	71	0.3
Wood aster	71	0.3
Bracken	57	14.8
Dwarf raspberry	57	10.0
Goldthread	57	1.4
Cinnamon fern	43	5.7
Evergreen wood fern	43	0.1
New York fern	29	6.5
Teaberry	29	3.6
Strawberry	29	1.6
Ground pine	29	0.1
Lady fern	29	0.1
Shinleaf	29	0.1
Short husk	29	0.1
White lettuce	29	0.1
Herb Layer (Mean % Cover)		31
Hair-cap moss	86	1.1
Schreber's moss	86	1.1
Common green sphagnum	71	19.5
Stair-step moss	57	4.3
Broom moss	57	1.8
Pale fat-leaved sphagnum	43	5.0
Shaggy moss	43	1.3
Hypnum moss	43	0.8
Flat topped sphagnum	43	0.5
Fern moss	29	3.0
Wavy dicranum	29	0.3
Bryo-Lichen Layer (Mean % Cover)		24

Distinguishing Features

This is a poorly drained forest dominated by trembling aspen. Beaked hazelnut is characteristic of the shrub understory. Bracken, dwarf raspberry and common green sphagnum are the most abundant of an otherwise sparsely-developed herb and moss layers.



Interrupted fern

Site Characteristics

Slope Position:	Level ⁶ Lower ⁴
Surface Stoniness:	(Non - Slightly) ¹⁰
Bedrock Outcrop:	(Non-rocky) ¹⁰
Elevation Range:	9 - 87m
Slope Gradient:	Level ⁶ Gentle ⁴
Aspect:	North ³ East ³ None ⁴
Exposure:	Moderate ¹⁰
Microtopography:	Level ⁵ Slightly ⁴ Strongly ¹
Drainage:	Poor ⁷ Imperfect ³

Soil Characteristics

Soil Type:	ST4 ⁴ ST7 ⁴ ST10 ²
Parent Material:	Glacial till ⁹ Lacustrine ¹
Rooting Depth (cm):	(<30) ³ (30-45) ⁶ nd ¹
Duff Thickness (cm):	(0-5) ³ (6-10) ⁴ (11-20) ³

